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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,859	03/28/2002	Gregory J. Momber	SIEBE96517-US	5466
23626	7590	10/05/2004	EXAMINER	
LEYDIG VOIT & MAYER, LTD 6815 WEAVER ROAD ROCKFORD, IL 61114-8018			SQUIRES, BRETT S	
			ART UNIT	PAPER NUMBER
			2836	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,859

Applicant(s)

MOMBER, GREGORY J.

Examiner

Brett S Squires

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/28/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/28/2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Priority

1. It is noted that this application appears to claim subject matter disclosed in prior Application No. 60/120,586, filed February 18, 1999. A reference to the prior application must be inserted as the first sentence of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e) or 120. See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. Also, the current status of all nonprovisional parent applications referenced should be included.

If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of

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any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Drawings

2. The drawings are objected to under 37 CFR 1.84(p) because figures 1-9 contain numbers, letters, and reference characters smaller than 0.32 cm (1/8 inch) in height. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes

made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: in figure 4 "the resistor" reference numbers 10,11 are not labeled and in figures 5a-5d "the transistor" reference number 50 is not labeled. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: it contains the following spelling error on page 8 line 8 "line synch" this is understood to be "line sync". Appropriate correction is required.

5. The disclosure is objected to because of the following informalities: the following elements have the wrong reference numbers in the specification on page 5 line 20 "capacitors (40 and 42)" this is understood to be "capacitors (41 and 42)" and on page 5 line 28 "zener diode (30) and zener diode (31)" this is understood to be "zener diode (32) and zener diode (33)." Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

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Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-11 and 13-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Pecore (US 6,014,325).

Pecore discloses a controlled transformerless DC power supply having a dual polarity DC output responsive to an AC input (figure 4, col. 8 lines 42-53). The first DC output (figure 4, ref# 319) has a diode rectifier (figure 4 ref# 326,327) with a regulated dc output exhibiting a first polarity and includes a voltage regulator having at least one Zener diode (figure 4 ref# 341). The second DC output (figure 4, ref# 316) has a diode rectifier (figure 4 ref# 326,327) with a regulated dc output inverted with respect to the first polarity and includes a voltage regulator having at least one Zener diode (figure 4 ref# 335,337). The second dc output also includes an inverter having a common emitter transistor (col. 7 lines 51-67, col. 8 lines 1-23).

Pecore further discloses the Zener diodes for each dc output are connected to a filter (figure 2 ref# 103,105, col. 5 lines 47-50 and 65-68).

Pecore even further discloses the controlled transformerless DC power supply has a relay voltage, which is controlled by a microprocessor (col. 4 lines 53-67 and col. 5 lines 1-7).

Pecore shows the above stated controlled transformerless DC power supply having the same polarity with respect to ground (figure 2, col. 5 lines 20-27, col. 7 lines 1-35) with the first DC output (figure 2 ref# 116) and a second DC output (figure 2 ref#

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119). The diodes (figure 2 ref# 124,126,128,130) are used to shift the ac input 180 degrees for the second DC output (col. 6 lines 37-67 and col. 7 lines 1-17).

Regarding Claim 5:

Pecore discloses several types of switching devices may be used in place of the shown bipolar transistor (col. 8 lines 20-23). If an n-channel MOSFET is used in place of the bipolar transistor, it would have a common source.

Regarding Claim 9:

Pecore discloses a first and second Zener diode connected in series for the second voltage regulator (figure 4 ref# 335,337) and one Zener diode connected for the first voltage regulator. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a second Zener diode connected in series for the first voltage regulator, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being obvious over Pecore (US 6,014,325) and Tanoi (US 5,498,991).

Pecore discloses the above stated controlled transformerless DC power supply having a microprocessor, but does not disclose the microprocessor is controlled by a level shifter circuit.

Tanoi discloses a level shifter circuit (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in Pecore the level shifter circuit such as that taught by Tanoi in order to ensure the control signals being sent from the sensors to the microprocessor are of the correct voltage levels. The motivation to include the level shifter circuit in the controlled transformerless DC power supply having a microprocessor is reduce the risk of the microprocessor being damaged by extremely high voltage signals and not being able to interpret extremely low voltage signals.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. Additional prior art of interest includes but is not limited to the following US Patents and Publications, Foreign Patents and Publications and Non-patent Literature: US 5,621,631, US 5,646,514, and US 4,843,831 A.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brett S Squires whose telephone number is (571)272-2268. The examiner can normally be reached on 8am-5:30pm Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2058. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brett S Squires
Examiner
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A handwritten signature in black ink, appearing to read 'B. Sircus', with a stylized flourish at the end.

BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800